UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/725,415	11/29/2000	Rakesh Taori	PHN 17,762	9540

24737 7590 12/11/2003

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER	
PATEL, KINARI M	
ART UNIT	**PAPER NUMBER**
2654	8

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/725,415	TAORI, RAKESH	
	Examiner	Art Unit	
	Kinari Patel	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2000* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
(e) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(f) BRIEF SUMMARY OF THE INVENTION.
(g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(h) DETAILED DESCRIPTION OF THE INVENTION.
(i) CLAIM OR CLAIMS (commencing on a separate sheet).
(j) ABSTRACT OF THE DISCLOSURE (commencing g on a separate sheet).
(k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

Claim Rejections - 35 USC § 102

1. The following is a quotation of 35 U.S.C. 102(b) which forms the basis for all obviousness rejections set forth in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 4, 5, 6, 7, 9, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by McAulay et al. (US Patent No. 4,885,790).

As per claim 1, McAulay et al. disclose a method of coding a sound signal as various streams of frames, in which the sound signal is subdivided into various segments and each segment is coded to a corresponding frame (Col. 2, Ln. 4-5), characterized in that the sound signal is represented as a set of sine waves defined by their amplitude and frequency (Col. 2, Ln. 38-43), in that the amplitude and the frequency of each sine wave in a segment are stored in a frame corresponding to this segment, independently of other segments (Col. 2, Ln. 38-43: if the amplitude and frequency components are calculated, they can also be stored) and in that the frames thus obtained are numbered and subdivided into n streams (Col. 2, Ln. 3-13: components are tracked from one frame to the next, and values are interpolated of the components from one frame to the next to obtain a parametric representation of the waveform. This is equivalent to numbering and subdividing frames in a number of streams), where frame number i is subdivided into stream i modulo-n (Col. 8, Ln. 1-3, 13-15 and 34-35).

As per claim 2, McAulay et al. disclose the method of claim 1 characterized in that also the phase of each sine wave in a segment is stored in the frame corresponding to this segment (Col. 8, Ln. 1-3, 13-15, and 34-35, FIG. 6, 40).

As per claim 3, McAulay et al. disclose the method of claim 1 characterized in that n equals 2 (Col. 2, Ln. 12-13: a series of sine waves are generated and the number of waves may be 2).

As per claim 4, McAulay et al. disclose a method of decoding a sound signal which comprises various streams of numbered frames, in which each frame contains information about a segment of the sound signal, characterized in that an arbitrary stream is selected from the stream of frames (Col. 2, Ln. 4-5), after which the sound signal is reconstructed by generating sine waves for each segment of the sound signal for which a corresponding frame is present in the selected stream (Col. 2, Ln. 10-13), which sine waves are based on the information in the corresponding frame (Col. 2, Ln. 5-8), and generating sine waves for each segment of the sound signal for which no corresponding frame is present in the selected stream (Col 2, Ln. 8-10: values are interpolated), which sine waves are based on the information in the frames corresponding to a segment selected from a segment immediately preceding and a segment immediately following the respective segment (Col. 2, Ln. 7-8).

As per claim 5, McAulay et al. disclose a decoding method as claimed in claim 4, characterized in that sine waves are generated for a segment of the sound signal for which no

corresponding frame occurs in the selected stream, but for which a corresponding frame does occur in another stream, which sine waves are based on the information in the corresponding frame from the other stream (Col. 2, Ln. 8-13).

As per claim 6, McAulay et al. disclose a system for coding a sound signal as various streams of frames, in which the sound signal is subdivided into various segments and each segment is coded to a corresponding frame, characterized in that the coding system comprises means for representing a sound signal as a set of sine waves defined by their amplitude and frequency (Col. 2, Ln. 1-13), in that the amplitude and the frequency of each sine wave in a segment are stored in a frame that corresponds to this segment, independently of other segments (Col. 2, Ln. 38-43: if the amplitude and frequency components are calculated, they can also be stored), and in that the frames thus obtained are numbered and subdivided into n streams (Col. 2, Ln. 3-13: components are tracked from one frame to the next, and values are interpolated of the components from one frame to the next to obtain a parametric representation of the waveform. This is equivalent to numbering and subdividing frames in a number of streams), where frame number i is assigned to stream i modulo-n (Col. 8, Ln. 1-3, 13-15 and 34-35).

As per claim 7, McAulay et al. disclose a coding system as claimed in claim 6, characterized in that the coding system also includes means for storing the phase of each sine wave in a segment in the frame corresponding to this segment (Col. 8, Ln. 1-3, 13-15, and 34-35, FIG. 6, 40).

As per claim 8, McAulay et al. disclose a coding system as claims in claim 6 characterized in that n equals 2 (Col. 2, Ln. 12-13: a series of sine waves are generated and the number of waves may be 2).

As per claim 9, a system for decoding a sound signal which comprises various streams of numbered frames, in which each frame contains information about a segment of the sound signal, characterized in that the decoding system is arranged for selecting an arbitrary stream from the streams of frames (Col. 2, Ln. 4-5) and then reconstructing the sound signal by generating sine waves for each segment of the sound signal for which a corresponding frame is present in the selected stream (Col. 2, Ln. 10-13), which sine waves are based on the information in the corresponding frame (Col. 2, Ln. 5-8), and for generating sine waves for each segment of the sound signal for which no corresponding frame is present in the selected stream (Col 2, Ln. 8-10: values are interpolated), which sine waves are based on the information in the frames corresponding to a segment selected from a segment immediately preceding and a segment immediately following the respective segment (Col. 2, Ln. 8-13).

As per claim 10, a decoding system as claimed in claim 9, characterized in that the decoding system is also arranged for generating sine waves for a segment of the sound signal for which a corresponding frame does not occur in the selected stream, but for which a corresponding frame does occur in another stream, which sine waves are based on the information in the corresponding frame from the other stream (Col. 2, Ln. 8-13).

Allowable Subject Matter

3. Claim 11 is allowed.

4. The following is an examiner's statement of reasons for allowance:

As per claim 11, the prior art taken alone or in combination fail to teach a system arranged for recording and playing back sound signals, comprising a coder as claimed in claim 8, a storage system and a decoder as claimed in claim 10, in which:

the storage system comprises a storage medium divided into at least a first and a second part, the storage system being arranged for being in one of two states, initially in a state A for storing the one stream offered by the coder in the first part of the storage medium and the other stream offered by the coder in the second part, and when the available free space on the storage medium falls short of a predefined limit, in a state B, in which the first part of the storage medium is no longer used for storing the offered streams, and the second part of the storage medium is intended to store one of the two offered streams while a stream stored in the second part in state A is overwritten.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,266,644 to Levine with respect to audio encoding

US Patent No. 5,872,531 to Johnson et al. with respect to signal encoding and decoding

US Patent No. 5,504,833 to George et al. with respect to sinusoidal modeling

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kinari Patel whose telephone number is 703-305-8487. The examiner can normally be reached on 9 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 703-305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

kp

RICHEMOND DORVIL
SUPERVISORY PATENT EXAMINER

Notice of References Cited	Application/Control No. 09/725,415	Applicant(s)/Patent Under Reexamination TAORI, RAKESH	
	Examiner Kinari Patel	Art Unit 2654	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-4,885,790	12-1989	McAulay et al.	704/265
	B	US-5,504,833	04-1996	George et al.	704/211
	C	US-5,872,531	02-1999	Johnson et al.	341/110
	D	US-6,266,644	07-2001	Levine, Scott Nathan	704/503
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.